APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/663,279	09/16/2003	Joseph Khatami	400.219US01	1465

			EXAMINER
27073	7590	02/13/2006	HEIN, GREGORY P

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ART UNIT	PAPER NUMBER
2188	

DATE MAILED: 02/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>9/16/2003</u>.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1 - 53</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1 - 10, 17 - 24, 28 - 35, 40 - 53</u> is/are rejected.

7)☒ Claim(s) <u>11 - 16, 25 - 27, 36 - 39</u> is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>9/16/2003</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date <u>11/10/2003</u>.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2.   Claims 1 - 2, 8 – 10, 17, 28 - 29, 35, 40, 43, 47 – 48 and 53 rejected under 35

U.S.C. 102(b) as being anticipated by U.S. Patent 6,279,069 (Robinson et al).

As per claims 1, 17, 29, 40, 47 – 48, and 53 Robinson teaches:

Querying at least one memory device to discover the memory type and

configuring the driver to access the at least one memory device according to the

discovered memory type (Robinson Col. 5 lines 23 – 33 The information returned from

the device after a query is used to initialize the driver for the device.)

With respect to claim 47, it is inherent to the base claims that the host is capable

of querying the memory device.

As per claim 2, Robinson teaches:

Querying at least one memory device to discover the memory type further

comprises querying at least one Flash memory device to discover the memory type

(Robinson Col. 5 line 25).

As per claim 8, Robinson teaches:

Querying an architecture feature of the memory device (Robinson Col. 5 lines 23

– 33.)

As per claim 9 and 35, Robinson teaches:

The driver contains at least one of a low level driver, a data manager, and a file

manager (Robinson Col. 5 line 31 "... a system device driver ...").

As per claim 10, Robinson teaches:

Configuring the driver to access the at least one memory device with low-level

driver operation parameters and memory device command sequences to match the

discovered memory type (Robinson Col. 5 lines 30 – 33 The data from the query

provides the low-level driver initialization parameters.)

As per claims 28 and 43 Robinson teaches:

The host is one of a processor and an external memory controller (Robinson Fig.

1 clearly shows a CPU further explained in Col. 5 lines 40 – 43 and Robinson Fig. 3

clearly shows an external type memory controller further explained in Col. 8 lines 25 –

28.)

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

4.   Claims 4, 23, and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable

over U.S. Patent 6,279,069 (Robinson et al) and further in view of U.S. Patent

6,907,496 (Langford et al).

As per claim 4, 23, and 34:

Robinson does not teach while discovering the memory type writing to an

address of the memory device and reading a response from the address.

Langford teaches writing to an address of the memory device and reading a

response from the memory address during query the device to discover the memory

type (Langford Col. 4 lines 4 – 13 The geometry information contributes to identifying

the memory device type which is discovered by writing to an address and reading the

response.) It would have been obvious to one of ordinary skill in the art at the time of

the invention to combine Langford with Robinson since Langford provides an improved

method for detecting the configuration of flash memory devices (Langford Col. 5 lines

52 – 55.)

5.   Claims 5 – 7, 20 – 21, 32 – 33, 44 – 46, and 50 - 52 are rejected under 35

U.S.C. 103(a) as being unpatentable over U.S. Patent 6,279,069 (Robinson et al) and

further in view of U.S. Patent 6,275,412 (Kasa et al.)

As per claim 5, 22, 33, 46, and 52:

Robinson does not teach querying a common flash interface (CFI.)

Kasa teaches querying a CFI to discover the memory type (Kasa Col. 11 lines 56

– 67.) It would have been obvious to one of ordinary skill in the art at the time of the

invention to combine the CFI specification as disclosed in Kasa with Robinson since it is

a well known industry standard specification in the art that allows configuration

information from flash memory devices to be determined from a common interface

(Kasa Col. 11 lines 58 – 61.)

As per claim 6, 20, 32, 44, and 50:

Robinson does not teach querying a protection register to determine the memory

type.

Kasa teaches querying a protection register to determine the memory device

type (Kasa Col. 12 lines 20 – 30 and Kasa Col. 12 lines 35 – 43 Special purpose

registers are a part of the CFI standard.) It would have been obvious to one of ordinary

skill in the art at the time of the invention to combine the CFI specification as disclosed

in Kasa with Robinson since it is a well known industry standard specification in the art

that allows configuration information from flash memory devices to be determined from

a common interface (Kasa Col. 11 lines 58 – 61.)

As per claim 7, 21, 45, and 51:

Robinson does not teach querying an addressable memory ID stored in the

memory device.

Kasa teaches querying an addressable memory ID stored in the memory device

(Kasa Col. 12 lines 20 – 30 Specifically, lines 25 – 26 teach a 16-bit identification as

part of the CFI specification.) It would have been obvious to combine these features of

Kasa with Robinson for the reasons set forth above.

6.   Claims 3, 18, 30, and 41 are rejected under 35 U.S.C. 103(a) as being

unpatentable over U.S. Patent 6,279,069 (Robinson et al) and further in view of U.S.

Patent 6,970,969 (Wong et al).

7.   As per claim 3, 18, 30, and 41:

Robinson does not specifically teach that the flash memory device comprises a

NAND type or NOR type flash memory device.

Wong teaches both a NAND type flash and a NOR type flash (Wong Col. 8 lines

6 – 11.) It would have been obvious to one of ordinary skill in the art at the time of the

invention to combine this feature of Wong with Robinson since NAND and NOR flash

type memories are both well known in the art to those of ordinary skill as Wong

discloses (Wong Col. 8 lines 6 – 7.)

8.   Claims 19, 31, 42, and 49 are rejected under 35 U.S.C. 103(a) as being

unpatentable over U.S. Patent 6,279, 069 (Robinson et al) and further in view of U.S.

Patent 6,650,366 (Parulski et al) and U.S. Patent 6,987,927 (Battaglia et al).

As per claims 19, 31, 42, and 49:

Robinson does not teach using a PCMCIA-ATA, a Compact Flash (CF), a USB

Flash, Memorystick, and a multimedia card (MMC) compatible interface.

Battaglia teaches using a Memorystick interface and a Multimedia card interface

(Battaglia Col. 16 lines 4 – 11) and a USB interface (Col. 15 lines 2 – 6). The interfaces

are used with flash memory devices (Battaglia Abstract.)

Parulski teaches using a PCMCIA-ATA interface (Col. 4 lines 30 – 35.)

It would have been obvious to combine these features of Parulski and Battaglia

to Robinson since the interfaces set forth in Parulski provide a removable non-volatile

storage device (Parulski Col. 4 lines 30 – 34) and the features of Battaglia provide a

wide range of memory interface types (Battaglia Col. 16 lines 4 – 7.)

Allowable Subject Matter

9.   Claims 11 – 16, 25 – 28, and 36 – 39 are objected to as being dependent upon a

rejected base claim, but would be allowable if rewritten in independent form including all

of the limitations of the base claim and any intervening claims.
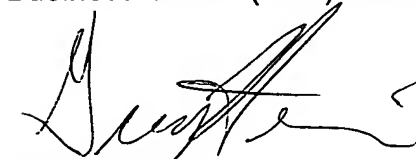
Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Gregory P. Hein whose telephone number is 571-272-

4180. The examiner can normally be reached on M-F 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Mano Padmanabhan can be reached on 571-272-4210. The fax phone

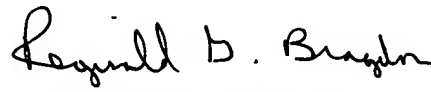number for the organization where this application or proceeding is assigned is 571-

273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

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you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Gregory Hein
2/1/2006

REGINALD G. BRAGDON
PRIMARY EXAMINER